

Md Jahid Hasan

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🐙 Github in LinkedIn YouTube

Education

- 2022–present: **PhD in Business Information Systems**, *Royal Melbourne Institute of Technology (RMIT) University*, Australia.
- 2016–2021: **Bachelor of Science, Electrical and Electronic Engineering**, *Hajee Mohammad Danesh Science and Technology University*, Bangladesh.

Work Experience

- Sep, 2022 – Present: **Machine Learning Engineer at carsales.com Ltd.**
My role is developing an advanced Artificial intelligence (AI) model to enhance the capability of e-commerce. The main focus is to build a computer vision model to detect objects from video and images.
- Aug, 2020 – Nov, 2020: **Technical Machine Learning internship at PrenuerLAB .**
Developing deep learning model of CNN, RNN, LSTM, GRU, Attention Mechanism, BERT, GPT, and so on for Natural Language Processing. The key responsibility is building a deep learning-based Bangla chatbot, Sentiment Analysis and Recommendations system with web API(Flask, Django).

Research Experience

- 2022 **Object Detection and Segmentation.**
Currently working on Advanced AI models such as Attention Mechanism and Transformer to deploy on large-scale object recognition ([Researchgate](#))
- 2021 **Deep learning for Biomedical Imaging.**
Developed a Deep Learning Based Retinal OCT Image Denoising system with Generative Adversarial Network (Bachelor Thesis paper). Besides, worked on X-ray image segmentation to detect the region responsible for the disease. ([Researchgate](#))
- 2020 **Biometric authentication and Face Detection system.**
Developed a biometric authentication and information extraction system using computer vision. Further, we integrated this task into criminal face detection and location tracking systems using deep learning and flask. ([Researchgate](#))
- 2019 **Bacterial Medical Image Analysis.**
Developed a Deep learning architecture for accurately classifying microscopic bacteria images and image segmentation of Covid19 . I published research papers regarding this area of research. ([Google Scholar](#))
- 2019 **Bangla Character Recognition.**
Developed a Deep learning architecture for accurately recognized Bangla Basic, Compound & Numerical Character from Image. I published two research papers regarding this area of research. ([Google Scholar](#))
- 2018 **Bangla Language Processing.**
Implemented a Sentiment Analysis method that essentially understand people's emotions from text. Further for deaf and dumb people developed a computer vision method to recognize sign language. I published two research papers regarding this area of research. ([Google Scholar](#))
- 2016 **Internet of Things, Embedded system and Robotics.**
Implemented various Embedding system as well as robotics application such as an IoT system that uses real IP and RESTful API for controlling, monitoring and accessing the home appliances remotely from anywhere in the world using Android based smartphone app or web app ,Heart-rate and Physical Temperature monitoring system, Semi-autonomous quad-copter Drone, Autonomous line and wall follower robot, Waiter robot in restaurant service, Personal Area Network with Bluetooth and nRF, Smart Agriculture Irrigation system, Smart Home security system using RFID, Autonomous Sumo-bot and so o. ([YouTube](#))

Publications

In Conference Proceedings

- 2021 **Md. Jahid Hasan**, Md Shahin Alom, Umme Fatema, Md. Ferdous Wahid; Deep Learning Based Retinal OCT Image Denoising using Generative Adversarial Network, In *proceedings of International Conference on Automation, Control and Mechatronics for Industry 4.0 (ACMI), 8-9 July 2021* .
- 2021 **Md. Jahid Hasan**, Md Shahin Alom, Md Shikhar Ali; Deep Learning based Detection and Segmentation of COVID19 and Pneumonia on Chest Xray Image, In *proceedings of International Conference on Information and Communication Technology for Sustainable Development (ICICT4SD)*.
- 2020 **Md. Jahid Hasan**, Md Shahin Alom; Umme Fatema; Mahmudul Hasan Moon; Maize Diseases Image Identification and Classification by Combining CNN with Bi-Directional Long Short-Term Memory Model, In *proceedings of IEEE Region 10 Symposium, 2020*.
- 2019 **Md. Jahid Hasan**, Shamim Mahbub, Md Shahin Alom, Md Abu Nasim; Rice Disease Identification and Classification by Integrating Support Vector Machine With Deep Convolutional Neural Network, In *proceedings of IEEE International Conference on Advances in Science, Engineering and Robotics Technology (ICASERT)*.
- 2019 **Md. Jahid Hasan**, Md. Ferdous Wahid; Md. Shahin Alom; Bangla Compound Character Recognition by Combining Deep Convolutional Neural Network with Bidirectional Long Short-Term Memory, In *proceedings of International Conference on Electrical Information and Communication Technology (EICT), 2019*.
- 2019 **Md. Jahid Hasan**, Md. Ferdous Wahid; Md. Shahin Alom; Performance Analysis of Machine Learning Techniques for Microscopic Bacteria Image Classification, In *proceedings of International Conference on Computing, Communication and Networking Technologies (ICCCNT), 2019*.
- 2019 **Md. Ferdous Wahid, Md. Jahid Hasan, Md. Shahin Alom**, Cricket Sentiment Analysis from Bangla Text Using Recurrent Neural Network with Long Short Term Memory Model, In *proceedings of 2nd International Conference on Bangla Speech and Language Processing(ICBSLP), 2019*.

Project Experience

- 2020 **Deploy flask on Handwritten Digit Recognition using Convolutional Neural Network | ML web app**([YouTube](#)).
- 2020 **CNN- Image Classification App**([YouTube](#)).
- 2020 **Real-Time Face Mask Detector with TensorFlow, Keras, and OpenCV** ([YouTube](#)).
- 2020 **Real Time Custom Face Recognition APP**, ([YouTube](#)).
- 2020 **Image and Video Segmentation**, ([YouTube](#)).
- 2017 **Autonomous line and wall follower robot**, ([YouTube](#)).
- 2017 **Semi-autonomous quad-copter Drone**, ([YouTube](#)).
- 2017 **Smart Home security system using RFID**, ([YouTube](#)).

Computer Programming skill

- Language: Python, C, Java, Android, MySQL, HTML, CSS, JavaScript
- Framework: NumPy,Pandas,Scipy, Matplotlib, Seaborn, OpenCV, Scikit-Learn TensorFlow, Keras, PyTorch, Flask, Django and so on
- Cloud : Amazon Web Services (AWS), Microsoft Azure
- Hardware: Assembly, Arduino

Teaching Assistantship

Session, 2018: **Batch-EEE18: Computer programming with C language**, HSTU, Dinajpur.

Position of Responsibility

2019 **Robotics convener of IEEE HSTU Student Branch**, HSTU, Dinajpur.

Nov, 2019 **Organizer, Maker-Fair 2109 organized by IEEE HSTU Student Branch**, HSTU, Dinajpur.

Academic Achievements & Recognitions

2021 **Invited to conduct a Workshop on "Python Programming Language" organized by IEEE HSTU SB**, HSTU, Dinajpur.

2019 **Best Poster Presentation Award in Maker Fair organized by IEEE HSTU SB**, HSTU, Dinajpur.

2019 **Invited to conduct a Workshop on "Basic Robotics with Arduino Workshop" Jointly organized by BdOSN and IEEE HSTU SB**, HSTU, Dinajpur.

2018 **Invited to conduct a Workshop" on "Basic Electronics and Robotics with Arduino" organized by EEE club of HSTU**, HSTU, Dinajpur.

Reference

Kok-Leong Ong

Professor, Business Analytics

Head, Department of Information Systems and Business Analytics

Director, RMIT Enterprise AI and Data Analytics Hub

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